WHAT IS CLAIMED IS.

1. An ultrasound transducer comprising:

(a) a piezoelectric film having a first end and a second end;

(b) a plurality of electrodes disposed on said piezoelectric film;

(c) at least one securing member; and

(d) a support structure, which is substantially cylindrical, wherein said first end and said second end are secured to said support structure by said at least one securing member.

2. The ultrasound transducer of claim 1 further comprising an electrical contact disposed on said support structure.

3. The ultrasound transducer of claim 1 wherein said support structure further includes a protrusion and wherein said first end and said second end are secured to said protrusion by said at least one securing member.

4. The ultrasound transducer of claim 3 wherein:

(a) said support structure has a central axis;

(b) said protrusion is formed as an elongated projecting ridge having a direction of elongation; and

(c) said direction of elongation being substantially parallel to said central axis.

5. The ultrasound transducer of claim 3 further comprising an electrical contact disposed on said protrusion.

6. The ultrasound transducer of claim 1 wherein said at least one securing member is a clip.

7. The ultrasound transducer of claim 1 further comprising an electrical contact wherein said electrical contact is disposed on said at least one securing member.

8. The ultrasound transducer of claim 1 wherein said piezoelectric film has a first surface and a second surface and wherein said electrodes include:

(a) a first electrode disposed on said first surface;

(b) a second electrode disposed on said second surface wherein at least a part of said second electrode is in an opposing relationship with at least a part of said first electrode;

(c) a first electrical connecting strip disposed on said first surface wherein said first electrical connecting strip is connected to said first electrode; and

(d) a second electrical connecting strip disposed on said second surface in a substantially non-opposing relationship with said first electrical connecting strip wherein said second electrical connecting strip is connected to said second electrode.

9. The ultrasound transducer of claim 1 wherein said piezoelectric film has a first surface and a second surface and wherein said electrodes include:

(a) a first electrode and a second electrode disposed on said first surface, wherein said first electrode is disposed in a pattern that is non-contiguous with said second electrode;

(b) a third electrode and a fourth electrode disposed on said second surface, wherein:

(i) at least a part of said third electrode is in an opposing relationship with at least a part of said first electrode;

(ii) at least a part of said fourth electrode is in an opposing relationship with at least a part of said second electrode; and

(iii) said third electrode is disposed in a pattern that is non-contiguous with said fourth electrode; and

(c) an electrical joining strip extending from said first electrode to said fourth electrode, wherein said electrical joining strip includes a first portion of said electrical joining strip on said first surface and a second portion of said electrical joining strip on said second surface, and wherein said first portion and said second portion are electrically connected.

10. The ultrasound transducer of claim 9 wherein said first portion and said second portion are electrically connected via a hole in said piezoelectric film.

11. The ultrasound transducer of claim 1 further comprising a helical metal spring, wherein said helical metal spring is disposed around said piezoelectric film.

12. An ultrasound receiver comprising:

(a) a piezoelectric film having a first surface and a second surface;

(b) a first electrode disposed on said first surface;

(c) a second electrode disposed on said second surface wherein at least a part of said second electrode is in an opposing relationship with at least a part of said first electrode;

(d) a first electrical connecting strip disposed on said first surface wherein said first electrical connecting strip is connected to said first electrode; and

(e) a second electrical connecting strip disposed on said second surface in a substantially non-opposing relationship with said first electrical connecting strip wherein said second electrical connecting strip is connected to said second electrode.

13. The ultrasound receiver according to claim 12 wherein:

(a) said first electrical connecting strip is in a substantially non-opposing relationship with said second electrode; and

(b) said second electrical connecting strip is in a substantially non-opposing relationship with said first electrode.

14. The ultrasound receiver according to claim 12 further comprising:

(a) a substantially cylindrical element, which is hollow, formed primarily from said piezoelectric film, said substantially cylindrical element having a central axis and a height measured parallel to said central axis; and

(b) a support structure for supporting said substantially cylindrical element, said support structure being configured to support said substantially cylindrical element in such a manner as to allow propagation of vibration waves circumferentially around a major part of said substantially cylindrical element; wherein said first electrode is formed as a strip extending in an extensional direction substantially parallel to said central axis along at least a part of said height, said strip subtending at said central axis an angle of not more than 90°.

15. The ultrasound receiver according to claim 14 wherein:

(a) said substantially cylindrical element has an inner surface wherein said first surface forms said inner surface; and

(b) said second electrode is grounded.

16. A multi-electrode ultrasound receiver comprising:

(a) a piezoelectric film having a first surface and a second surface;

(b) a first electrode and a second electrode disposed on said first surface, wherein said first electrode is disposed in a pattern that is non-contiguous with said second electrode;

(c) a third electrode and a fourth electrode disposed on said second surface, wherein:

(i) at least a part of said third electrode is in an opposing relationship with at least a part of said first electrode;

(ii) at least a part of said fourth electrode is in an opposing relationship with at least a part of said second electrode; and

(iii) said third electrode is disposed in a pattern that is non-contiguous with said fourth electrode; and

(d) an electrical joining strip extending from said first electrode to said fourth electrode wherein said electrical joining strip includes a first portion of said electrical joining strip on said first surface and a second portion of said electrical joining strip on said second surface and said first portion and said second portion being electrically connected.

17. The multi-electrode ultrasound receiver according to claim 16 further comprising:

(a) a substantially cylindrical element, which is hollow, formed primarily from said piezoelectric film, said substantially cylindrical element having a central axis and a height measured parallel to said central axis and wherein said first electrode and said second electrode in combination subtend at said central axis an angle of not more than 90°; and

(b) a support structure for supporting said substantially cylindrical element, said support structure being configured to support said substantially cylindrical element in such a manner as to allow propagation of vibration waves circumferentially around a major part of said substantially cylindrical element.

18. The multi-electrode ultrasound receiver according to claim 17 wherein:

(a) said substantially cylindrical element has an inner surface wherein said first surface forms said inner surface; and

(b) said third electrode is grounded.

19. The multi-electrode ultrasound receiver according to claim 16 wherein said first portion and said second portion are electrically connected via a hole in said piezoelectric film.

20. The multi-electrode ultrasound receiver according to claim 16 further comprising:

(a) a first electrical connecting strip disposed on said first surface, wherein said first electrical connecting strip is connected to said second electrode; and

(b) a second electrical connecting strip disposed on said second surface, wherein said second electrical connecting strip is connected to said third electrode and said second electrical connecting strip is in a substantially non-opposing relationship with said first electrical connecting strip.

21. A method for providing shielding for an ultrasound transducer used for a predetermined frequency of ultrasound waves while minimizing disruption to said ultrasound waves, comprising the steps of:

(a) spacing windings of a helical metal spring at a spatial period of less than about half of a wavelength of the ultrasound waves associated with the ultrasound transducer; and

(b) positioning said helical metal spring surrounding the ultrasound transducer.

22. The method of claim 21, wherein said step of spacing is performed by spacing said windings at a spatial period of less than about quarter of said wavelength.

23. A digitizer system comprising:

(a) an ultrasound transducer associated with a moveable element;

(b) two ultrasound transducers;

(c) a base unit; wherein said two ultrasound transducers are maintained in fixed geometrical relation by attachment to said base unit; and

(d) an acoustic wave-guide; wherein said acoustic wave-guide includes a hollow elongated member and said acoustic wave-guide is disposed between said two ultrasound transducers.

24. The digitizer system of claim 23 wherein said acoustic wave-guide is substantially straight.

25. The digitizer system of claim 23 wherein said acoustic wave-guide is curved.

26. A method for operating a system for determining a position of a point on a moveable element, the system including: a moveable group of ultrasound transducers including a first ultrasound transducer and a second ultrasound transducer each mounted on the moveable element where the first ultrasound transducer, the second ultrasound transducer and the point on the moveable element are sequentially spaced along a common axis; and a fixed group of ultrasound transducers including a third ultrasound transducer and a fourth ultrasound transducer spaced apart by a predefined distance, the method for operating comprising the steps of:

(a) transmitting a plurality of measurement signals between the first ultrasound transducer and the fixed group and between the second ultrasound transducer and the fixed group;

(b) deriving distances between the first ultrasound transducer and each of the third ultrasound transducer and the fourth ultrasound transducer and between the second ultrasound transducer and each of the third ultrasound transducer and the fourth ultrasound transducer from time-of-flight measurements for said measurement signals; and

(c) deriving from said distances a position of the point.

27. The method of claim 26 wherein the first ultrasound transducer and the second ultrasound transducer are both cylindrical ultrasound transducers.